

Appl. N. 09/739,929
Amendment dated Jun 1, 2004
Reply to Office Action of March 2, 2004

IN THE CLAIMS

Please enter the following amendments to the claims.

1. (currently amended) A method of forming a Cu alloy, comprising:
plating a layer of Cu over a substrate dielectric layer;
forming a dopant layer comprising Al or Co over the Cu layer;
driving dopants from the dopant layer into the Cu layer; and
removing the dopant layer.
2. (currently amended) The method of Claim 1, wherein the substrate dielectric layer comprises a copper diffusion barrier layer overlying a the dielectric layer.
3. (currently amended) The method of Claim 2, wherein the copper diffusion barrier layer comprises a material selected from the group consisting of Ta, TaN, TaSiN, W, WN, WSiN, Ti, TiN, TiSiN, and Co.
4. (original) The method of Claim 2, wherein forming the dopant layer comprises plating a layer of metal.
5. (cancelled)
6. (cancelled)
7. (previously presented) The method of Claim 1, wherein plating the layer of Cu comprises electroplating.

Appl. No. 09/739,929
Amendment dated June 1, 2004
Reply to Office Action of March 2, 2004

8. (previously presented) The method of Claim 1, wherein plating the layer of Cu comprises an electroless deposition.

9. (previously presented) The method of Claim 1, wherein driving dopants into the Cu layer comprises elevating the temperature of the dopant layer and Cu layers to between 300°C and 400°C.

10 - 30 (cancelled)